



Effective conservation of coastal habitats across the Mediterranean

A stakeholder approach

ENSERES Factsheet – September 2023

Background to the study: the ENSERES project

The ENhancing Socio-Ecological RESilience in Mediterranean coastal areas (ENSERES) project (2021-2023) is an ENI CBC MED funded project that focuses on transferring and mainstreaming ecosystem-based management (EBM) foundations, namely more effective implementation of the Mediterranean Integrated Coastal Zone Management (ICZM) protocol and better management of protected areas (PAs), in multi-level conservation and territorial policies as ways to bending the curve of coastal environmental degradation.

A previous study within the ENSERES project showed that whereas PAs proved to be an effective tool to reduce land development along Mediterranean coastal areas, the ICZM Protocol had had no effect in doing so. This study¹ aims to delve into those results by ascertaining the views of a range of relevant national and regional stakeholders on the conservation status of Mediterranean coastal areas and the factors that most and least contribute to it.

Conservation of Mediterranean coastal ecosystems

A number of pressures from global change, including land-use changes, energy use and pollution, jeopardize Mediterranean coastal biodiversity. Among these pressures, land development stands out as the foremost threat to coastal biodiversity in the Mediterranean due to its intensity, extent, expansion, permanency and irreversibility. Major drivers leading to land development have to do with mass tourism along Mediterranean coastal areas, intense population growth and internal migratory patterns towards coastal areas. These drivers result in thousands of hectares of natural and semi-natural coastal habitats transformed each year to give way to houses, hotels, highways, port facilities and other infrastructures. As a result, the Mediterranean Basin is considered one of the World's biodiversity hotspots, where great numbers of endemism coexist with high habitat degradation rates².



Land development is the greatest pressure to Mediterranean coastal ecosystems

¹ Rodríguez-Rodríguez et al. In press. *Policies for Mediterranean coastal habitat conservation before Global Change*. Tirant Lo Blanch

² Myers, N., Mittermeier, R.A., Mittermeier, C.G. et al. 2000. Biodiversity hotspots for conservation priorities. *Nature*, 403, 853-858

Some initiatives and tools to reduce biodiversity loss in Mediterranean coastal areas have been taken, including designating protected areas (PAs) or enacting the Integrated Coastal Zone Management (ICZM) Protocol of the Barcelona Convention.

Previous studies have looked into the effects of both tools to reduce land development on Mediterranean coasts, with mixed results. PAs showed positive results on the conservation of coastal habitats around the Mediterranean overall³. However, a previous study within the ENSERES Project⁴ showed that the ICZM Protocol had not had an effect in reducing land development among signatory countries in comparison with other countries around the Basin, when controlling for PAs, between 2015 and 2019.

Survey to Mediterranean stakeholders

In order to delve into the conservation status of coastal ecosystems around the Basin and ascertaining the main factors that contribute to their effective conservation, a brief, semi-structured online survey aimed at major national and regional organizations around the Mediterranean Sea was produced by the European Topic Centre on Spatial Analysis and Synthesis of the University of Malaga (ETC-UMA). It included the following questions:

1. Organizations' name
2. Organization's location (country)
3. Type of organization
4. How would your organization rate coastal⁵ habitat conservation in your country or region⁶? Why?
5. How does your organization consider the effect that each of the following factors has on the effective conservation of coastal¹ habitats in your country or region²?

The main organizations belonging to the following stakeholder categories from five Mediterranean countries (Tunisia, Lebanon, France, Spain and Italy) were identified with the support of ENSERES' partners: Ministries of environment, coastal protection agencies, ministries of housing/infrastructures, landowners, research institutions, tourism industry, environmental NGOs and developers.

In addition, a number of relevant international organizations of Mediterranean scope including the three UNEP MAP Regional Activity Centres - Priority Actions Programme (PAP/RAC), Specially Protected Areas (SPA/RAC), and Plan Bleu; the IUCN Centre for Mediterranean Cooperation (IUCN-Med), World Commission on Protected Areas (WCPA) and the Mediterranean network of Marine Protected Area managers (MedPAN) were also surveyed because of their regional, integrative perspectives. EU Survey software⁷ was used to produce

³ Donnelly, A. & Rodríguez-Rodríguez, D. 2021. *Effectiveness of protected areas against land development in coastal areas of the Mediterranean global biodiversity hotspot*. Global Ecology and Conservation, 38, e02223. <https://doi.org/10.1016/j.gecco.2022.e02223>

⁴ Rodríguez-Rodríguez et al. In press. *Policies for Mediterranean coastal habitat conservation before Global Change*. Tirant Lo Blanch

⁵ For this survey, 'coastal', refers to the **stripe of land up to 300 m inland from the shoreline**.

⁶ E.g. the Mediterranean region

⁷ <https://ec.europa.eu/eusurvey/home/welcome>

and administer the survey, which was open to responses between 28 August and 15 September 2023. An initial invitation followed by two reminders were emailed to all the 37 identified organizations.

Conservation status of coastal ecosystems

Responses from eleven organizations were retrieved, making a response rate of 30%. Categories of respondents to the survey included international organizations (46%), research institutions (36%), NGOs (9%) and government agencies (9%). Fig. 1 shows the geographic scope of the organizations that responded to the survey.

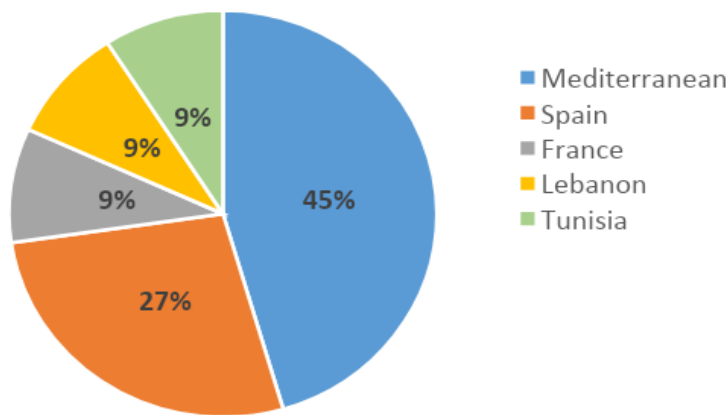


Figure 1. Geographic scope of the organizations that replied to the survey

Nearly 55% of organizations replied that the conservation status of coastal ecosystems in the Mediterranean was ‘poor’ or ‘very poor’, whereas 18% considered it to be ‘good’ or ‘very good’, (see Fig. 2).

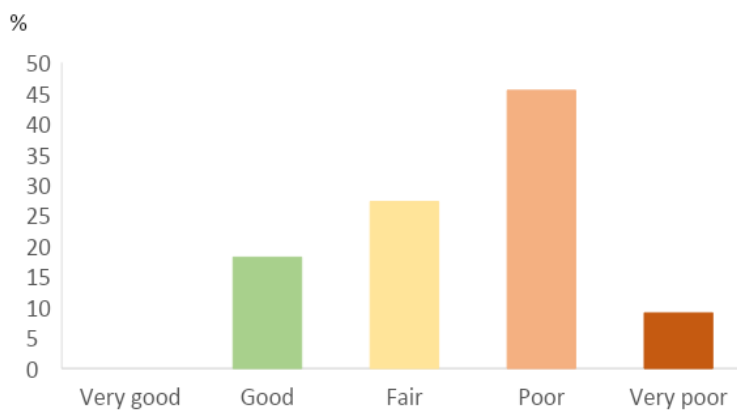


Figure 2. Organizational perception of the conservation status of Mediterranean coastal ecosystems, in percentage (n=11)

The main reasons mentioned for the ‘good’ conservation status by organizations from Tunisia and France were the existence of multiple regulations and tools for coastal conservation. In contrast, international organizations and organizations from Spain and Lebanon expressed that ‘poor’ or ‘very poor’ conservation statuses were due to the existence of many pressures, notably land development, insufficient conservation tools, privatization of coastal areas and governmental inaction.

Factors influencing coastal conservation

Figure 3 shows the ratings of each factor in the survey by the responding organizations.

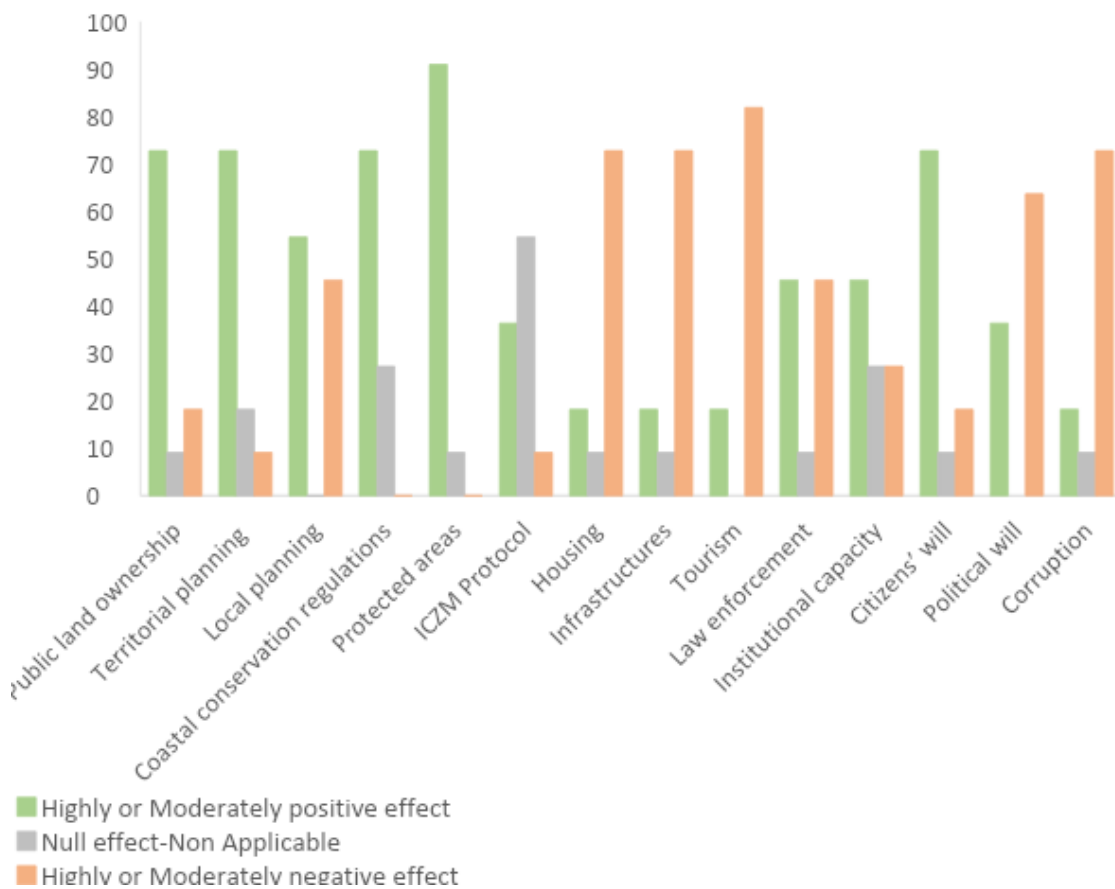


Figure 3. Organizational perception of the influence of factors on coastal habitat conservation in the Mediterranean Basin, in percentage of respondents.



Protected areas help to conserve coastal biodiversity in the Mediterranean Basin

When asked about a number of factors potentially influencing conservation of Mediterranean coastal habitats, some factors stood out. The factors contributing the most to coastal habitat conservation by all organizations were PAs, coastal conservation and territorial planning. In contrast, the factors that had the greatest negative effect on coastal habitat conservation by all responding organizations were tourism, housing, infrastructures and corruption (Figure 4). Figure 4 represents the difference in the number of mentions between ‘Highly positive effect’ plus ‘Moderately positive effect’ on the one hand, and ‘Highly negative effect’ plus ‘Moderately negative effect’ on the other that each factor got by the responding organizations

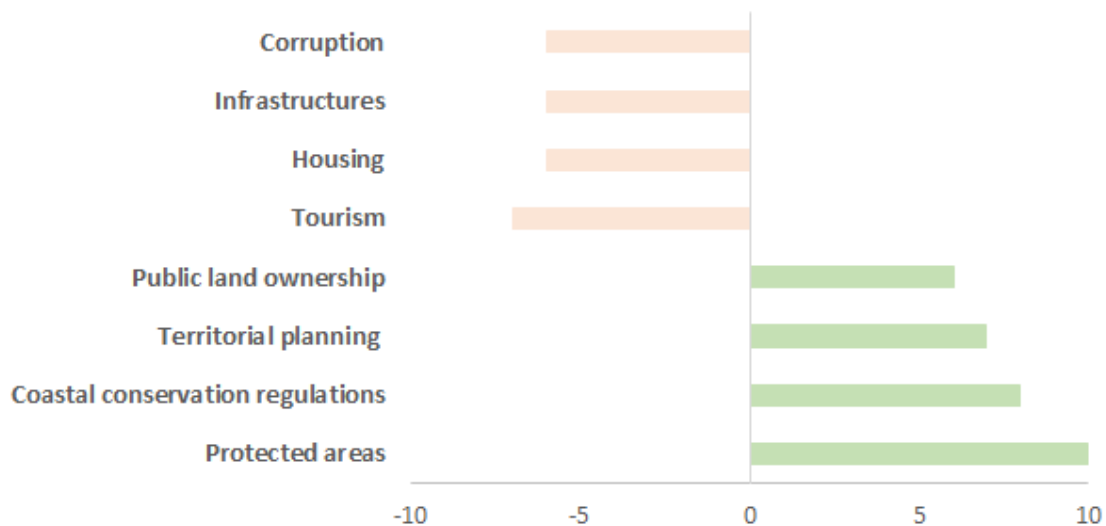


Figure 4. Major factors influencing coastal habitat conservation the most negatively and positively, according to the responding Mediterranean organizations

Conclusions / Next steps

According to the survey respondents, including five regional organizations and six national organizations from four Mediterranean countries, Mediterranean coastal habitats endure a poor conservation status due to multiple pressures, notably land development. The factors that were identified as contributing most positively to natural ecosystem conservation on the coast were PAs, specific regulations protecting the coast, territorial planning, and public ownership of land, whereas the most negative factors for conservation included tourism, housing, infrastructure building, and political and administrative corruption.

Wider national efforts to increase the coverage of PAs in threatened coastal areas of high conservation value, including river mouths or dune systems, as well as to prevent or reduce mass tourism and further land development on the coast arose as the major points from this study. Moreover, further studies and actions aimed at identifying and addressing challenges to the conservation of remaining natural habitats are highly needed at local, sub-regional and national scales, especially in the countries outside the scope of this study.